FUNDAMENTALS OF DATA ANALYTICS WITH TABLEAU

PROJECT TITLE:

UNLOCKING INSIDE INTO THE GLOBAL AIR TRANSPORTATION NETWORK

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NM2023TMID04168

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UNLOCKING INSIGHT INTO THE GLOBAL AIR TRANSPORTATION NETWORK

Introduction:

Description of project:

The global air transportation network dataset is the comprehensive collection of information on airports, airlines, airplane and routes. It content information such as names, cities, country, codes {IATA and ICAO} longitudes, latitudes and altitudes of airports across the world. With detailed time zone and daylight saving time data. Additionally they include information about the airports including their Ids, name, and aliases. IATA and ICAO code , call sign country of origin and active/inactive status similarly, it also cover sources details such as airline sources to destination airports along with essential details like code share stakeholder if any stops required during this journey along with the type of aircraft being used for that particular journey.

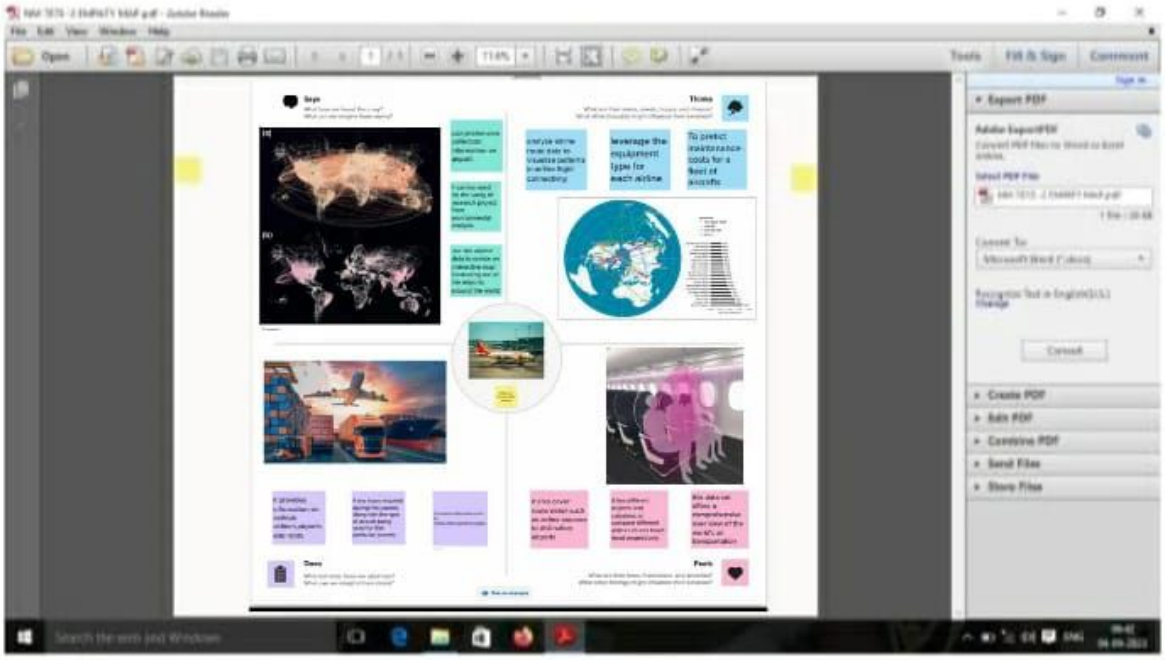
Uses:

It s use to analyses the details of air transportation network.

PROBLEM DEFINITION & DESIGN THINKING:

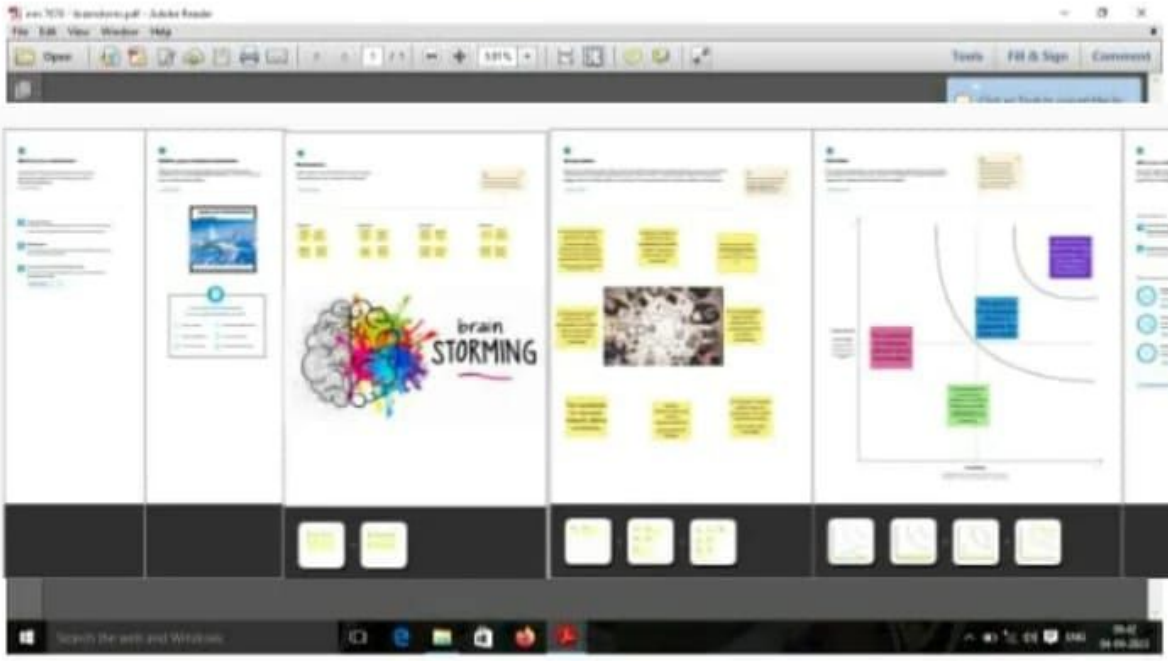
EMPATHY MAP:

First we make a empathy map for a group idea .To create a empathy map from mural web site and logic with email account and search the templates that you wanted to create.



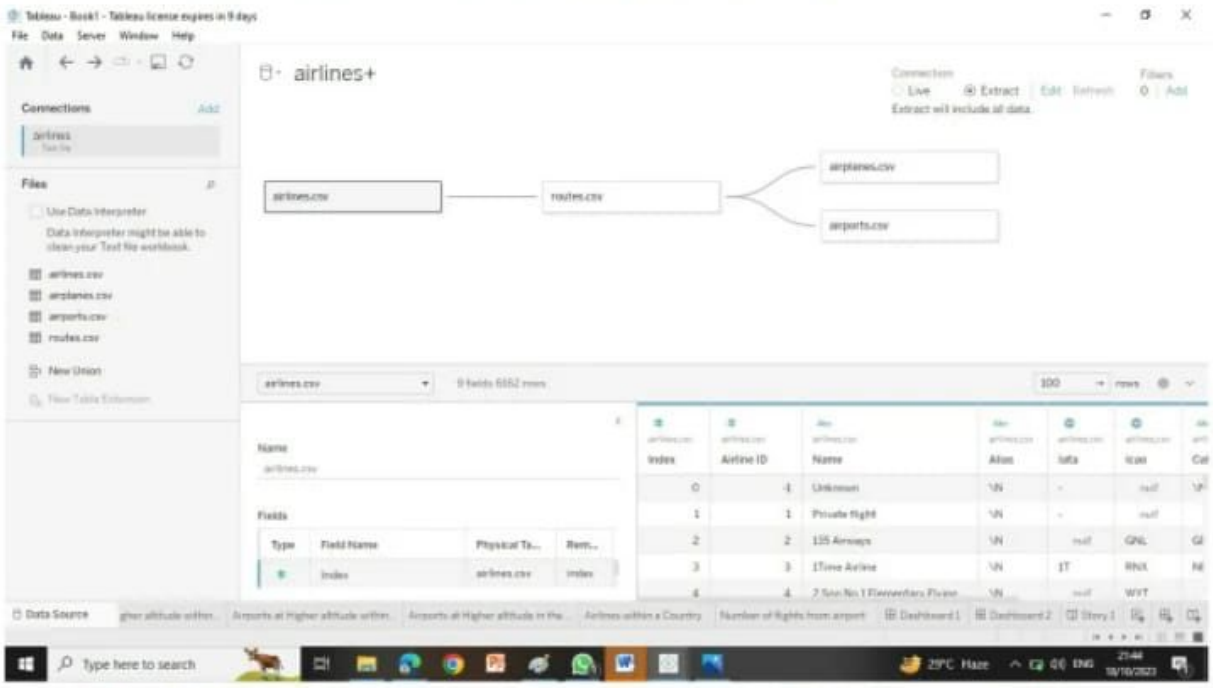
BRAINSTORMING MAP:

Then make a brainstorm map with mural website. I brainstorm we discussed the define problem and understand the problem. First we have defined what are the problems and types in the question box. Then it is a group idea and write in the box as person1, person2 and person 3. Now three person give different idea for the same problem. Take best three idea and type in last box.

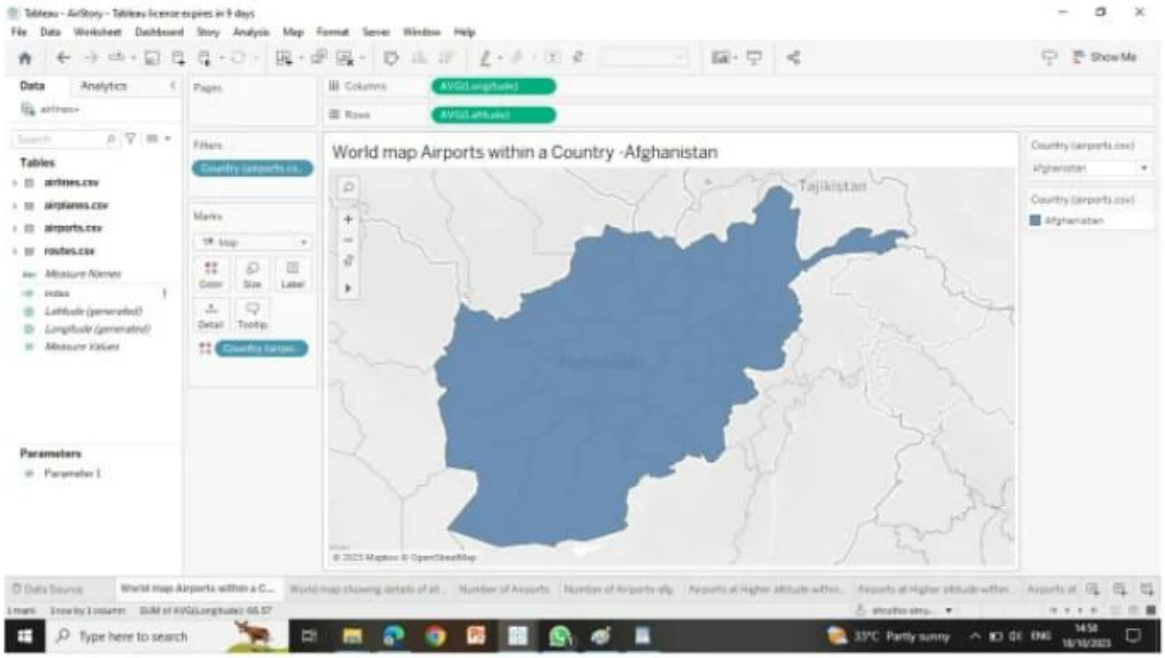


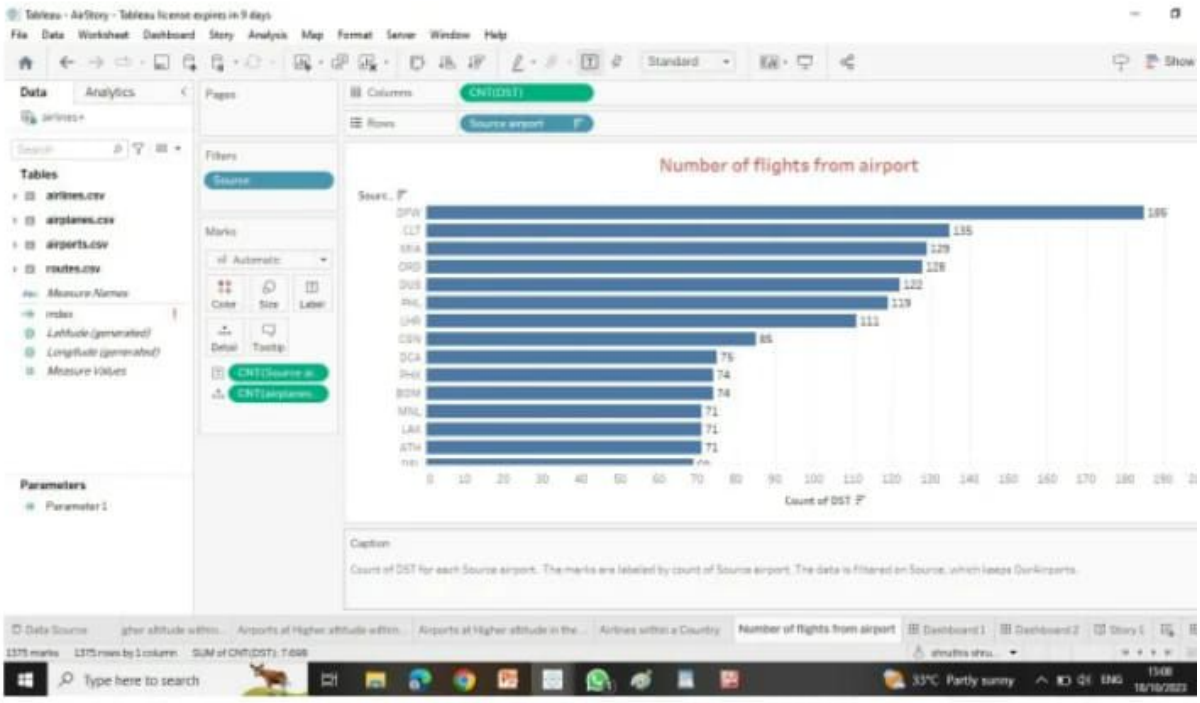
PROCEDURE FOR TABLEAU PROJECT:

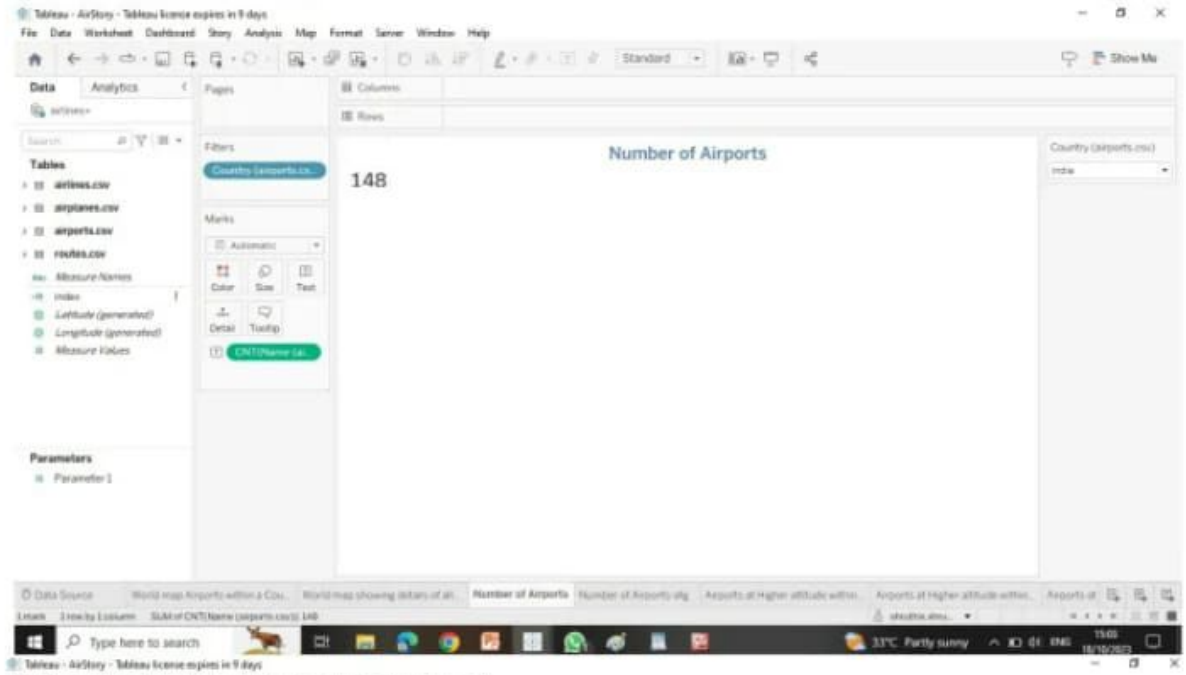
Before opening the tableau desktop we had download the dataset for your project.
after download the dataset we open the tableau desktop
After opening the selected link connect to data, select the "more" option and select the dataset.
It opens in the data source, now we arranged the data and select the "extract" option for the better performance for you analysis. We have arranged our project in the order airports data is first, air route as second, airlines and airplanes are joined together with air routes. Now we have switched to extract mode and we have created 6000+ row that we need. After we saved the data.

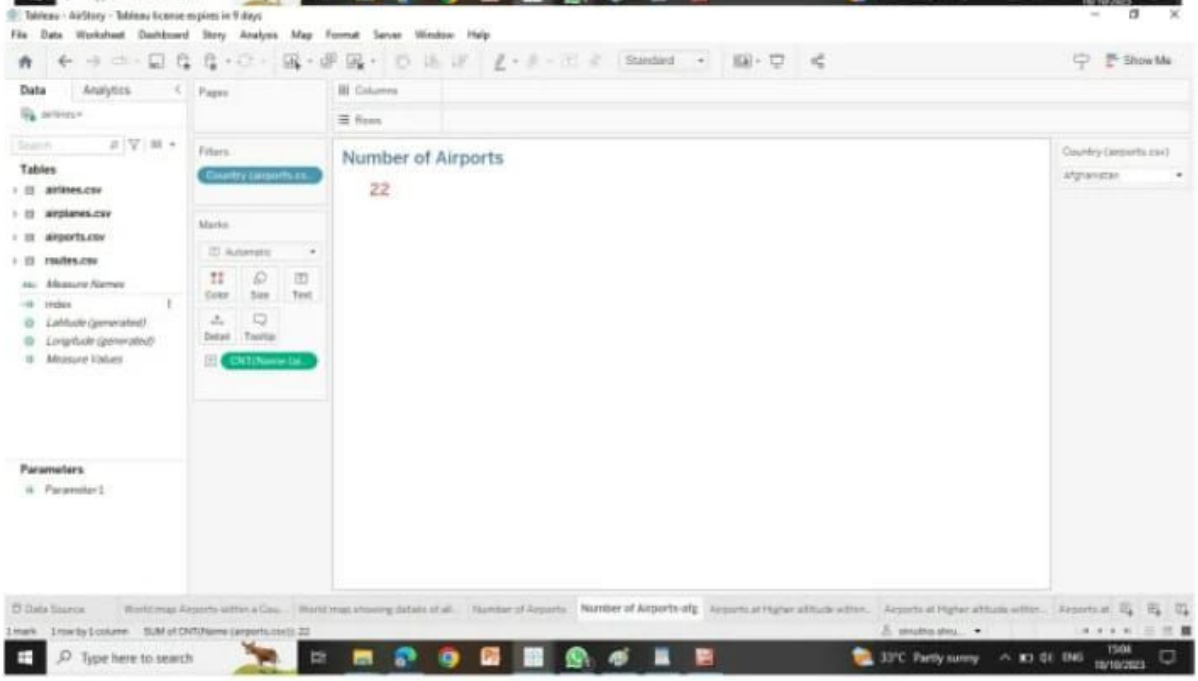


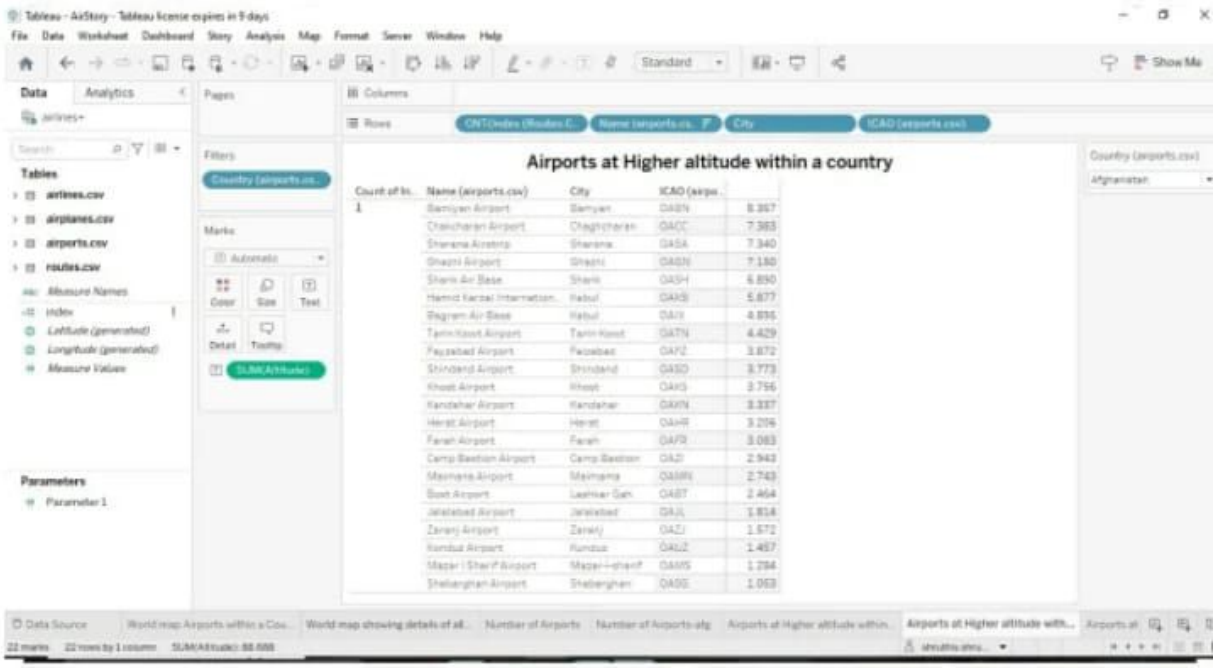
We have made 8 analysis sheets. The first sheet we made is a map contains the details of number of airports in the world. And the second one the map show the high amplitude of airports , then the details of total number of airports, airlines ,airplane and air route etc. The next the bar graph is show the latitude and longitude.


World map Airports within a Country -Afghanistan
Tajikistan


Number of flights from airport
DFW 185
CLT 135
MIA 129
ORD 128
DUS 122
PHL 119
LHR 111
CDG 85
DCA 76
PHX 74
BOM 74
MNL 71
LAX 71
ATH 71


Number of Airports
148

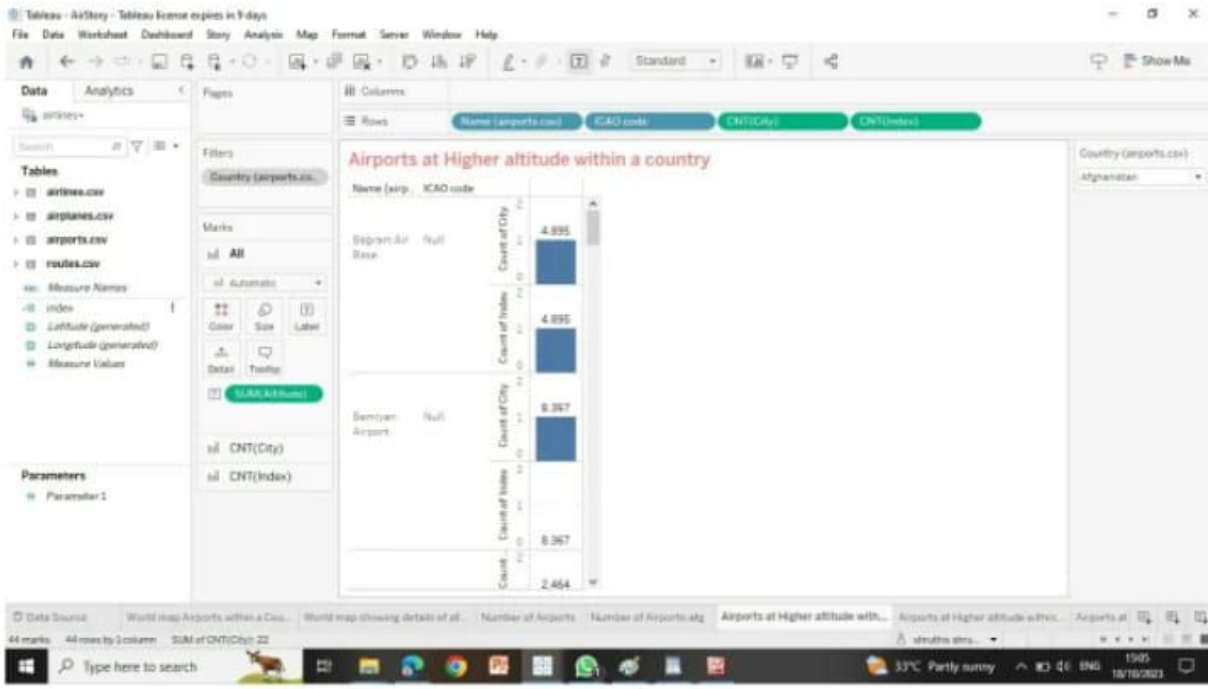

Number of Airports
22



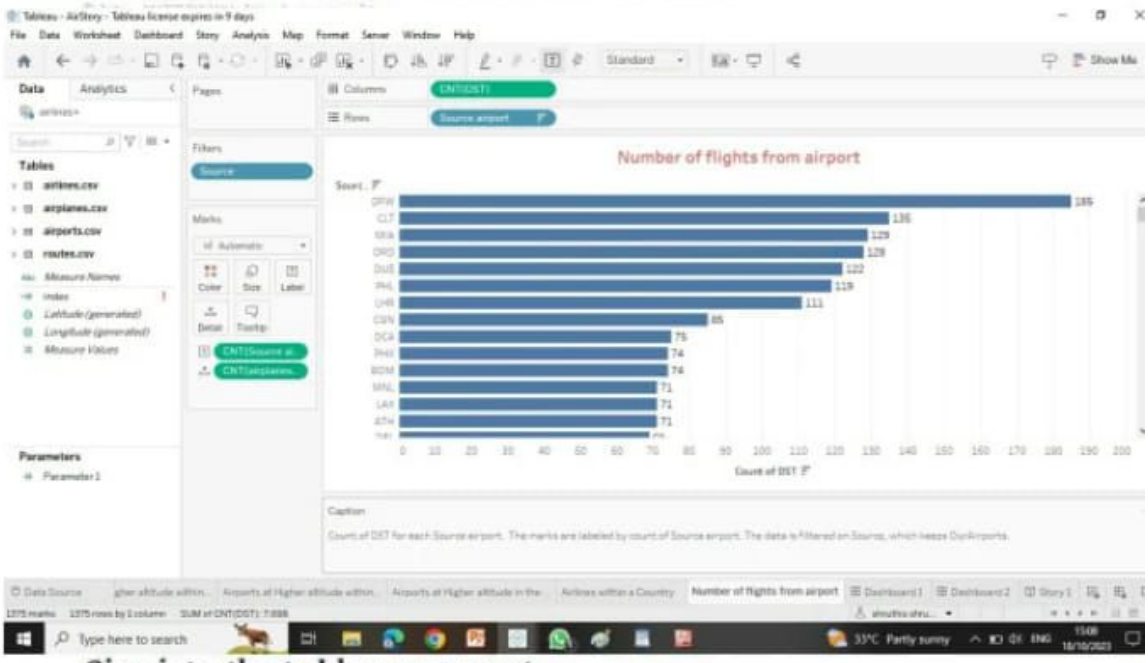
After finishing the analysis data, add a dashboard.

In the dashboard we can combine more sheets in single dashboard. The dashboard contains the combine of sheet that we created.

RESULT:



We created a story in the tableau desktop.



Sign into the tableau account.

Publish the workbook in the tableau cloud.

Upload the project in the github.

ADVANTAGES:

It used to user to get a holistic view of the entire data one screen about the air transportation network.

It used to saves times and resources.

This visualizing and analyzing is very easier to analyses the data of the air transportation network and it help in making business decision.

DISADVANTAGES:

It does not provide the feature of automatic refreshing of the reports with the help of air transportation network.

Application:

This visualizing and analyzing is very easier to analyses the data of the air transportation network and it helps in making business decision.

Conclusion:

The tableau desktop is very useful to analyses the large number of data in one screen. We have learn how to analyses the data, how visualizing the data and how to create a dashboard and story.

Our project is unlocking insight into the global air transportation network and has more 10 sheets, 2 dashboards and 1 story.

Future scope:

Easy to Analyses the data of air transportation network for the business and other purpose.